

**Remarks/Arguments**

Reconsideration of this application is requested.

**Claim Status**

Claims 1-20 were presented. Claims 9-15, which are withdrawn from consideration as a result of the previous restriction requirement and election of claims 1-8 and 16-20, are canceled without prejudice. Claims 2, 3, 7 and 17 are also canceled, without prejudice. Claims 1, 4, 6, 8, 16, 18 and 20 are amended, and new claims 21-30 are added. Thus, claims 1, 4-6, 8, 16 and 18-30 are now pending.

**Allowable Subject Matter**

Claims 3, 4, 7, 8 and 17-20 are indicated as allowable if rewritten in independent form.

Claim 3 depends from claim 2, which depends from claim 1. Claim 1 is rewritten to include all limitations of claims 2 and 3, with the exceptions that "a single crystal substrate" and "at a center portion of" (preceding --in the graded low-temperature deposited layer--) have been deleted since these limitations are not thought to be relevant to the indicated allowability of claim 3. Claims 2 and 3 are canceled, without prejudice, since they are now incorporated into claim 1.

Claim 4 is amended to depend from claim 1, rather than from canceled claim 3.

Claim 7 depends from claim 6, which depends from claim 1. Claim 6 is rewritten to include all limitations of dependent claim 7 and base claim 1, with the exception that "a single crystal substrate" has been deleted since this limitation is not thought to be relevant to the indicated allowability of claim 7. Claim 7 is canceled, without prejudice, since it is now incorporated into claim 6.

Claim 8 depends from claim 6, which depends from claim 1. Claim 8 is rewritten to include all limitations of intervening claim 6 and base claim 1, with the exception that "a single crystal substrate" has been deleted since this limitation is not thought to be relevant to the indicated allowability of claim 8.

Claim 17 depends from claim 16. Claim 16 is rewritten to include all limitations of claim 17, with the exception that "a single crystal substrate" has been deleted since this limitation is not thought to be relevant to the indicated allowability of claim 17. In addition, the terminology "n-type group-III nitride contact/cladding layer" is changed to "n-type group-III nitride *cladding* layer". Claim 17 is canceled, without prejudice, since it is now incorporated into claim 16.

Claim 18 is amended to depend from claim 16, rather than from claim 17, and claim 19 depends from claim 18.

Claim 20, which depends from claim 16, is rewritten to include all limitations of claim 16, with the exception that "a single crystal substrate" has been deleted since this limitation is not thought to be relevant to the indicated allowability of claim 17. In addition, the terminology "n-type group-III nitride contact/cladding layer" is changed to "n-type group-III nitride *cladding* layer".

In view of these amendments, applicant submits that claims 1, 4-6, 8, 16 and 18-20 are now in allowable form.

#### **Claim Rejections – 35 USC 102**

Claims 1, 2 and 6 are rejected under 35 USC 102(b) as anticipated by Duggan (US 6,072,189). Claim 16 is rejected under 35 USC 102(b) as anticipated by Redwing (US 5,874,747). As discussed above, claims 1, 6 and 16 are amended into allowable form, and claim 2 is canceled, without prejudice. Accordingly, these grounds for rejection are now moot.

#### **Claim Rejections – 35 USC 103**

Claim 5 is rejected under 35 USC 103(a) as obvious over Duggan in view of Redwing. Claim 5 depends from claim 1 which, as discussed above, is amended into allowable form. Accordingly, claim 5 is allowable for the same reasons as claim 1 and these grounds for rejection are now moot.

#### **New Claims**

New dependent claims 21-30 are added to better define the invention. The subject matter of these claims is supported, for example, in Figure 8 and at page 20,

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lines 16-22, of the specification. New claims 21-30 are allowable for the same reasons as those claims (1, 6, 8, 16 and 20) from which they depend.

### Conclusion

This application is now in condition for allowance. The examiner is invited to telephone the undersigned to resolve any issues that remain after entry of this amendment. Any fees due with this response, including extra claims fees, may be charged to our Deposit Account No. 50-1314.

Respectfully submitted,  
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